



# Lake Erie Harmful Algal Bloom Bulletin

30 July, 2018, Bulletin 12

## Analysis

The *Microcystis* cyanobacteria bloom continues in the western basin. Recent satellite imagery (7/29) indicates the bloom is present in Maumee Bay, extending north alongshore the Michigan coast to Brest Bay, east towards the Bass Islands, and along the Ohio coast to Catawba Island. Observed winds yesterday (7/29) reduced mixing and may have lead to scum formation. Measured toxin concentrations are detectable at all samples sites, but still below the recreational threshold throughout most of the bloom extent. *Keep pets and yourself out of the water in areas where scum is forming.* The persistent cyanobacteria bloom in Sandusky Bay continues.

## Forecasts

Forecast winds (5-11 kn) tomorrow through Thursday (7/31-8/2) will promote slight mixing of surface waters and eastward transport of surface *Microcystis* concentrations. --Davis, Keeney

## Additional Resources

To find a safe place for recreation, visit the Ohio DOH "BeachGuard" site: <http://publicapps.odh.ohio.gov/beachguardpublic/>

Ohio EPA's site on harmful algal blooms: <http://epa.ohio.gov/HAB-Algae>

NOAA's GLERL provides additional HAB data here: [http://www.glerl.noaa.gov/res/HABs\\_and\\_Hypoxia](http://www.glerl.noaa.gov/res/HABs_and_Hypoxia)

The images below are "GeoPDF". Please visit <https://go.usa.gov/xReTC> for instructions on viewing longitude and latitude.

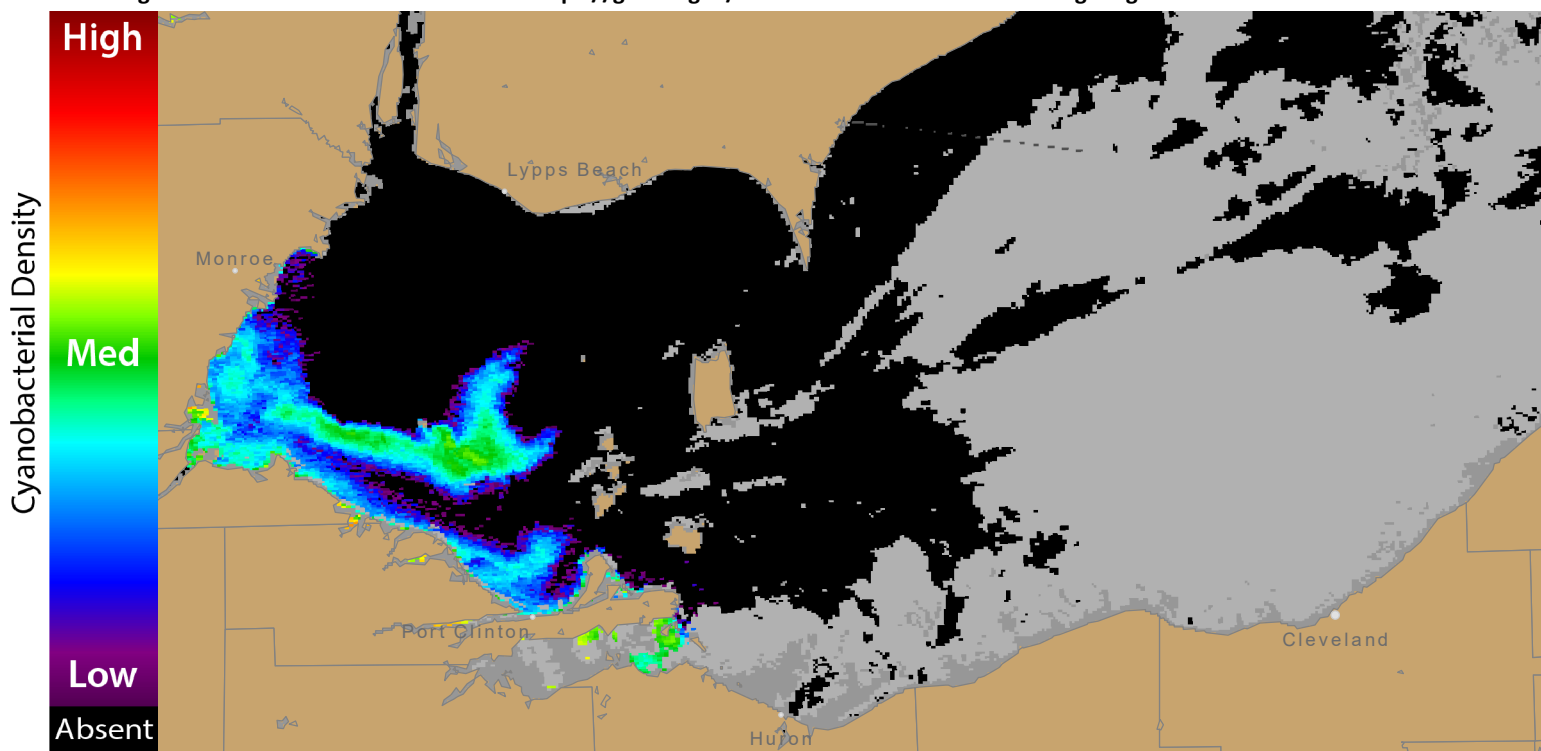


Figure 1. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 29 July, 2018 at 11:19 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/ml

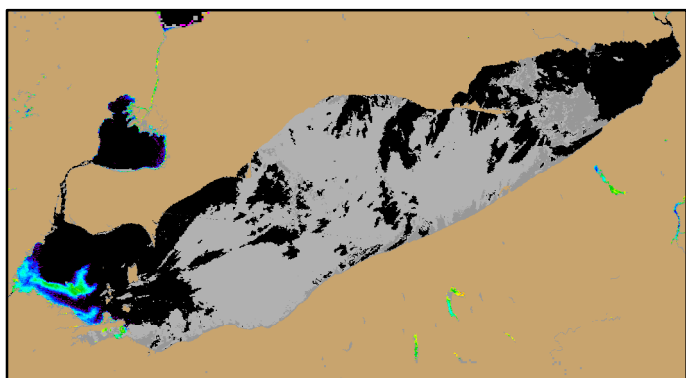
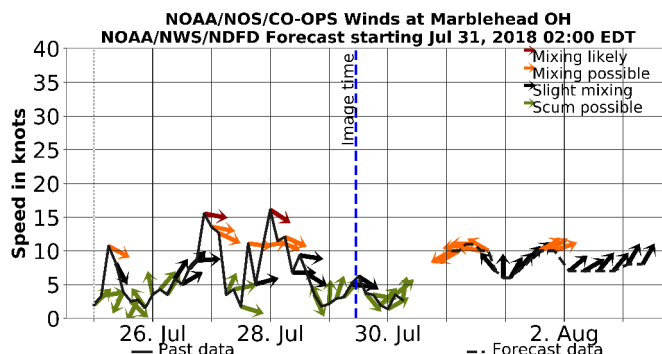


Figure 2. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 29 July, 2018 at 11:19.



Wind speed and direction from Marblehead, OH. Blooms mix through the water column at wind speeds greater than 15 knots (or 7.7 m/s).

For more information and to subscribe to this bulletin, go to: <https://tidesandcurrents.noaa.gov/hab/lakeerie.html>

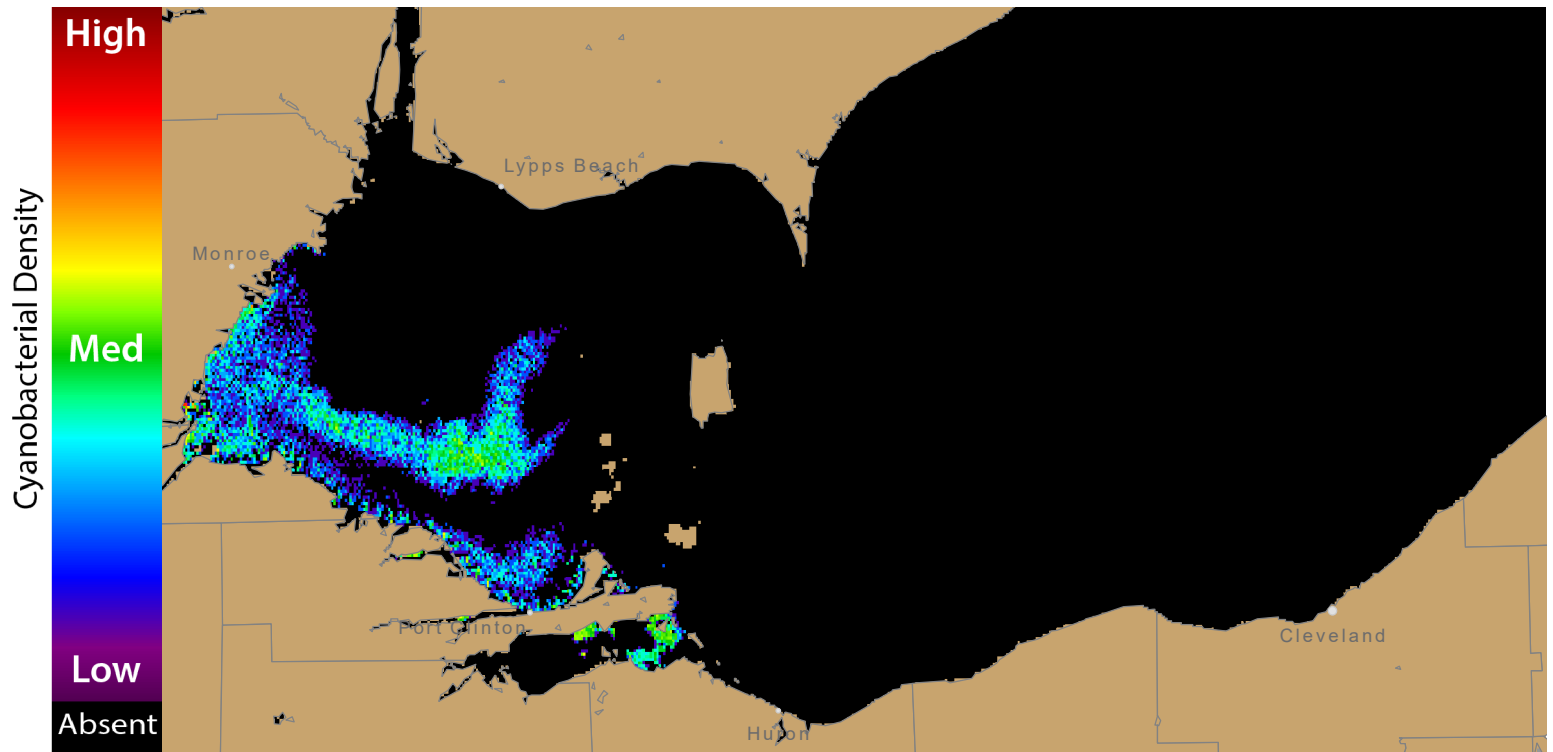


Figure 3. Nowcast position of bloom for 30 July, 2018 using LEOFS modelled currents to move the bloom from the 29 July, 2018 image.

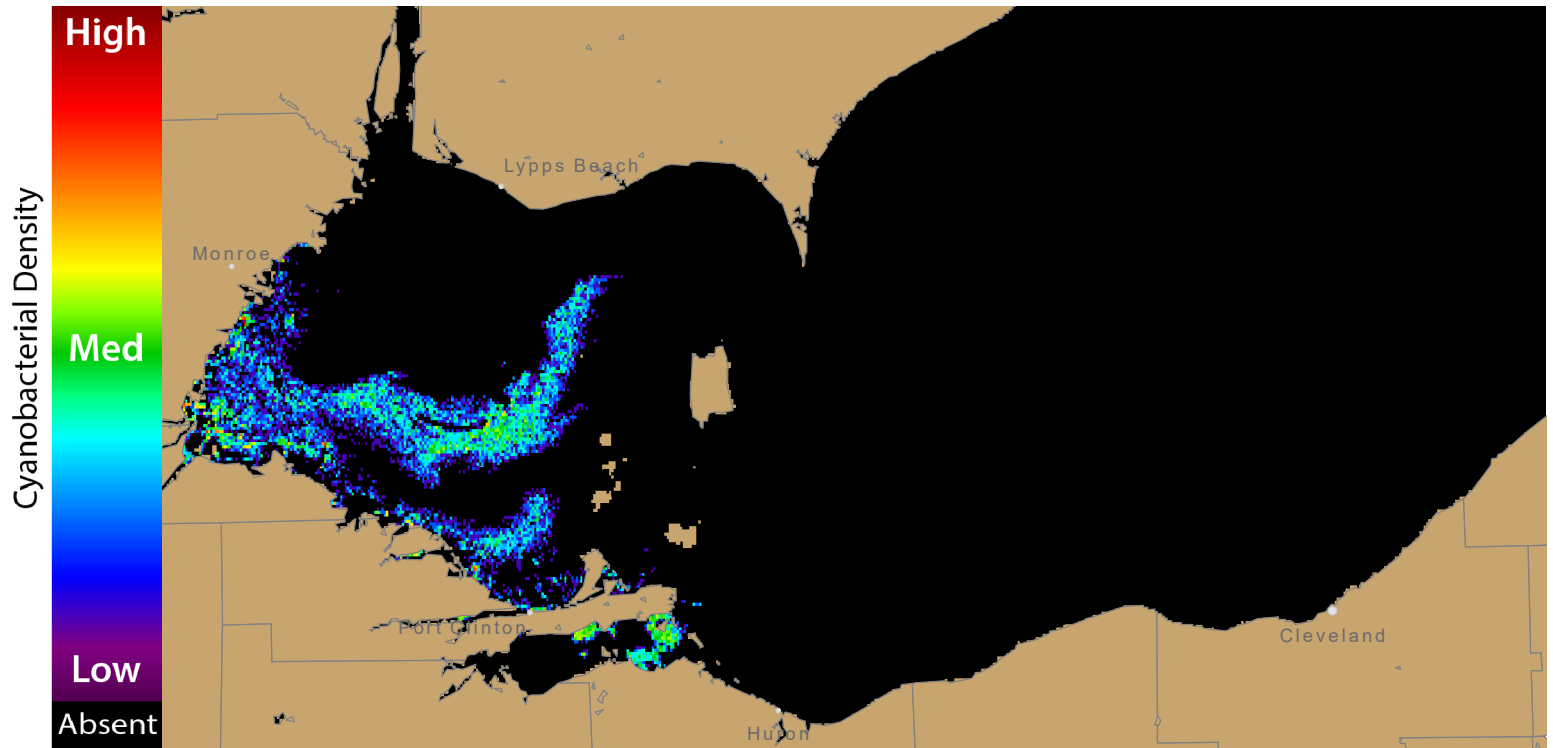
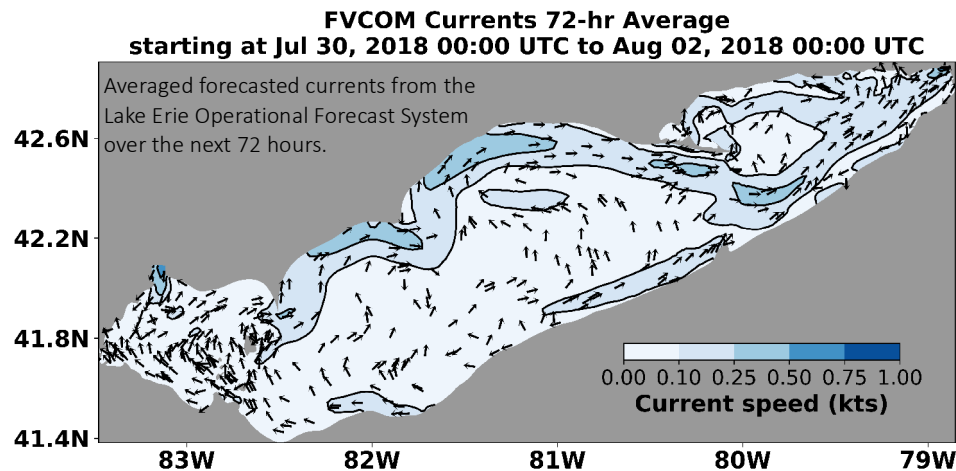


Figure 4. Forecast position of bloom for 02 August, 2018 using LEOFS modelled currents to move the bloom from the 29 July, 2018 image.



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<https://tidesandcurrents.noaa.gov/hab/lakeerie.html>